# M7VIT BIOS Setup

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# BIOS Setup

### Introduction

This manual discussed Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Pentium ® 4 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

### Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

### EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

### APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

### ACPI Support

Award ACPI BIOS support Version 1.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

### PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

### DRAM Support

DDR SDRAM (Double Data Rate Synchronous DRAM) are supported.

### Supported CPUs

This AWARD BIOS supports the AMD CPU.

### Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

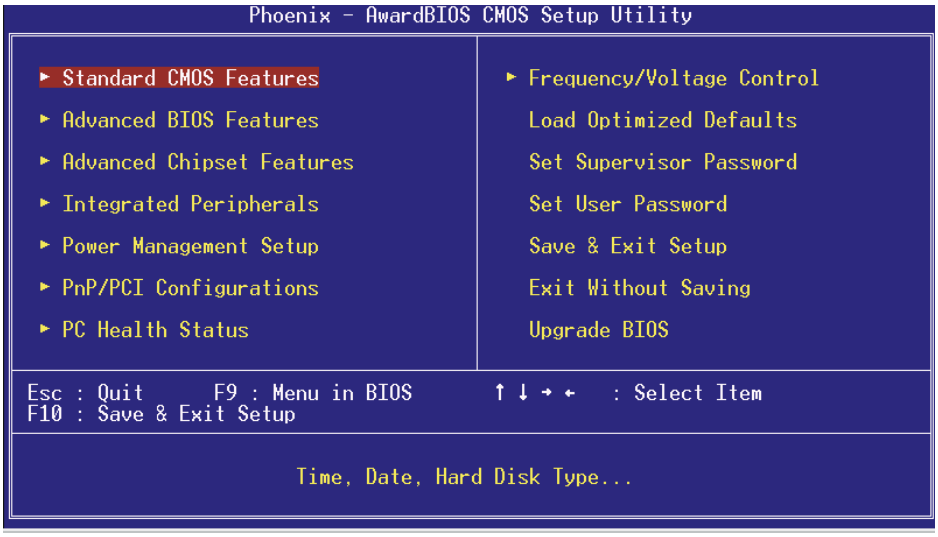
| Keystroke | Function |
|---|---|
| Up arrow | Move to previous item |
| Down arrow | Move to next item |
| Left arrow | Move to the item on the left (menu bar) |
| Right arrow | Move to the item on the right (menu bar) |
| Move Enter | Move to the item you desired |
| PgUp key | Increase the numeric value or make changes |
| PgDn key | Decrease the numeric value or make changes |
| + Key | Increase the numeric value or make changes |
| - Key | Decrease the numeric value or make changes |
| Esc key | Main Menu – Quit and not save changes into CMOS<br>Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu |
| F1 key | General help on Setup navigation keys |
| F5 key | Load previous values from CMOS |
| F6 key | Load the fail-safe defaults from BIOS default table |
| F7 key | Load the optimized defaults |
| F10 key | Save all the CMOS changes and exit |

# 1 Main Menu

Once you enter Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

> ***!! WARNING !!***
>
> The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

■ **Figure 1. Main Menu**


Phoenix - AwardBIOS CMOS Setup Utility
► Standard CMOS Features
► Advanced BIOS Features
► Advanced Chipset Features
► Integrated Peripherals
► Power Management Setup
► PnP/PCI Configurations
► PC Health Status
► Frequency/Voltage Control
Load Optimized Defaults
Set Supervisor Password
Set User Password
Save & Exit Setup
Exit Without Saving
Upgrade BIOS
Esc : Quit F9 : Menu in BIOS ↑ ↓ → ← : Select Item
F10 : Save & Exit Setup
Time, Date, Hard Disk Type...

### Standard CMOS Features

This submenu contains industry standard configurable options.

### Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

### Advanced Chipset Features

This submenu allows you to configure special chipset features.

### Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

### Power Management Setup

This submenu allows you to configure the power management features.

### PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

### PC Health Status

This submenu allows you to monitor the hardware of your system.

### Frequency/ Voltage Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. **(However, this function is strongly recommended not to use. Not properly change the voltage and clock may cause CPU or M/B damage!)**

### Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.

### Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.

**Set User Password**

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.

**Save & Exit Setup**

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.

**Exit Without Saving**

Abandon all changes made during the current session and exit setup. confirmation message will be displayed before proceeding.

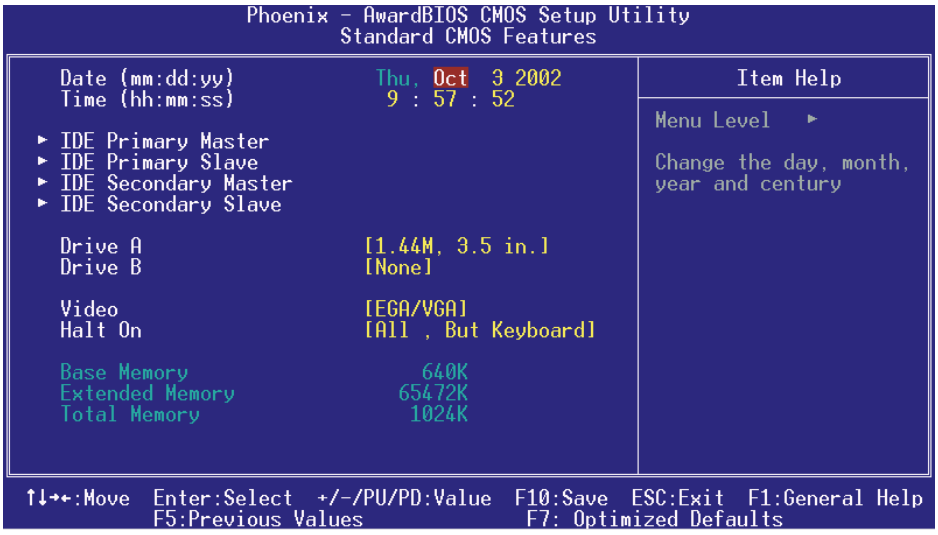
**Upgrade BIOS**

This submenu allows you to upgrade bios.

# 2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the<PgUp> or <PgDn> keys to select the value you want in each item.

■ **Figure 2. Standard CMOS Setup**


Phoenix - AwardBIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Thu, Oct 3 2002
Time (hh:mm:ss) 9 : 57 : 52
IDE Primary Master
IDE Primary Slave
IDE Secondary Master
IDE Secondary Slave
Drive A [1.44M, 3.5 in.]
Drive B [None]
Video [EGA/VGA]
Halt On [All , But Keyboard]
Base Memory 640K
Extended Memory 65472K
Total Memory 1024K
Item Help
Menu Level ▸
Change the day, month, year and century
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F7: Optimized Defaults

**Main Menu Selections**

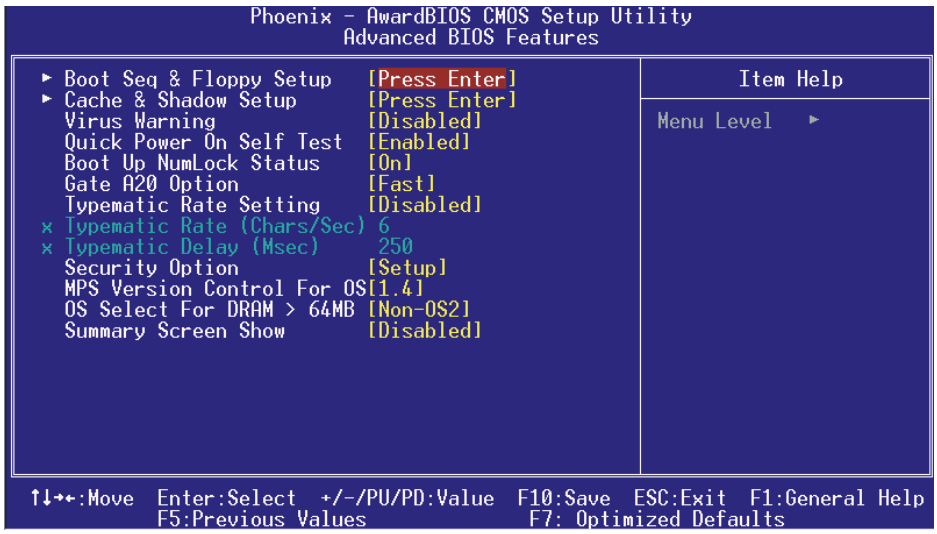
This table shows the selections that you can make on the Main Menu.

| Item | Options | Description |
|---|---|---|
| Date | mm : dd : yy | Set the system date. Note that the 'Day' automatically changes when you set the date. |
| Time | hh : mm : ss | Set the system internal clock. |
| IDE Primary Master | Options are in its sub menu. | Press <Enter> to enter the sub menu of detailed options |
| IDE Primary Slave | Options are in its sub menu. | Press <Enter> to enter the sub menu of detailed options. |
| IDE Secondary Master | Options are in its sub menu. | Press <Enter> to enter the sub menu of detailed options. |
| IDE Secondary Slave | Options are in its sub menu. | Press <Enter> to enter the sub menu of detailed options. |
| Drive A<br>Drive B | 360K, 5.25 in<br>1.2M, 5.25 in<br>720K, 3.5 in<br>1.44M, 3.5 in<br>2.88M, 3.5 in<br>None | Select the type of floppy disk drive installed in your system. |
| Video | EGA/VGA<br>CGA 40<br>CGA 80<br>MONO | Select the default video device. |

| Item | Options | Description |
|---|---|---|
| Halt On | All Errors<br>No Errors<br>All, but Keyboard<br>All, but Diskette<br>All, but Disk/ Key | Select the situation in which you want the BIOS to stop the POST process and notify you. |
| Base Memory | N/A | Displays the amount of conventional memory detected during boot up. |
| Extended Memory | N/A | Displays the amount of extended memory detected during boot up. |
| Total Memory | N/A | Displays the total memory available in the system. |

# 3 Advanced BIOS Features

■ **Figure 3. Advanced BIOS Setup**


Phoenix - AwardBIOS CMOS Setup Utility
Advanced BIOS Features
► Boot Seq & Floppy Setup [Press Enter]
► Cache & Shadow Setup [Press Enter]
Virus Warning [Disabled]
Quick Power On Self Test [Enabled]
Boot Up NumLock Status [On]
Gate A20 Option [Fast]
Typematic Rate Setting [Disabled]
x Typematic Rate (Chars/Sec) 6
x Typematic Delay (Msec) 250
Security Option [Setup]
MPS Version Control For OS [1.4]
OS Select For DRAM > 64MB [Non-OS2]
Summary Screen Show [Disabled]
Item Help
Menu Level ►
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F7: Optimized Defaults

**Boot Seq & Floppy Setup**

This item allows you to setup boot seq & Floppy.

**First/ Second/ Third/ Boot Other Device**
These BIOS attempt to load the operating system from the devices in the sequence selected in these items.
**The Choices:** Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled.

**Swap Floppy Drive**
For systems with two floppy drives, this option allows you to swap logical drive assignments.
**The Choices: Disabled** (default), Enabled.

**Boot Up Floppy Seek**
Enabling this option will test the floppy drives to determine if they have 40 or 80 tracks. Disabling this option reduces the time it takes to boot-up.
**The Choices:** Enabled, **Disabled** (default).

## Cache & Shadow Setup

This item allows you to setup cache & shadow setup.

**CPU Internal Cache**

Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

| | |
|---|---|
| **Enabled** (default) | Enable cache. |
| Disabled | Disable cache. |

**External Cache**

This option enables or disables "Level 2" secondary cache on the CPU, which may improve performance.

| | |
|---|---|
| **Enabled** (default) | Enable cache. |
| Disabled | Disable cache. |

**CPU L2 Cache ECC Checking**

This item allows you to enable/disable CPU L2 Cache ECC Checking.
**The Choices: Enabled** (default), Disabled.

**Video BIOS Shadow**

Determines whether video BIOS will be copied to RAM for faster execution.

| | |
|---|---|
| **Enabled** (default) | Optional ROM is enabled. |
| Disabled | Optional ROM is disabled. |

## Virus Warning

This option allows you to choose the Virus Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

| | |
|---|---|
| **Disabled** (default) | Virus protection is disabled. |
| Enabled | Virus protection is activated. |

## Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

| | |
|---|---|
| **Enabled** (default) | Enable quick POST. |
| Disabled | Normal POST. |

## Boot Up NumLock Status

Selects the NumLock. State after power on.

| | |
|---|---|
| **On** (default) | Numpad is number keys. |
| Off | Numpad is arrow keys. |

## Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

| | |
|---|---|
| Normal | A pin in the keyboard controller |

| | |
|---|---|
| | controls Gate A20. |
| **Fast** (default) | Lets chipset control Gate A20. |

**Typematic Rate Setting**

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.

**Disabled** (default)
Enabled

**Typematic Rate (Chars/Sec)**

Sets the rate at which a keystroke is repeated when you hold the key down.

**The Choices: 6** (default)**,** 8,10,12,15,20,24,30.

**Typematic Delay (Msec)**

Sets the delay time after the key is held down before it begins to repeat the keystroke.

**The Choices: 250** (default)**,** 500,750,1000.

**Security Option**

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

| | |
|---|---|
| System | A password is required for the system to boot and is also required to access the Setup Utility. |
| **Setup** (default) | A password is required to access the Setup Utility only. |

This will only apply if passwords are set from the Setup main menu.

**MPS Version Control For OS**

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.

**The Choices: 1.4** (default), 1.1.

**OS Select For DRAM > 64MB**

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.

**The Choices: Non-OS2** (default), OS2.

**Summary Screen Show**

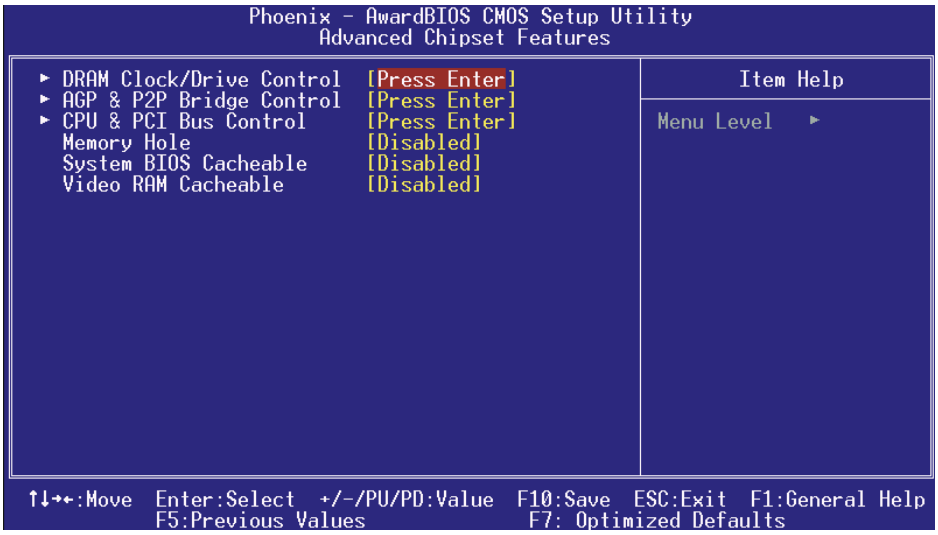
This item allows you to enable/ disable display the Summary Screen Show.

**The Choices: Disabled** (default), Enabled.

# 4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

■ **Figure 4. Advanced Chipset Setup**


Phoenix - AwardBIOS CMOS Setup Utility
Advanced Chipset Features
DRAM Clock/Drive Control [Press Enter]
AGP & P2P Bridge Control [Press Enter]
CPU & PCI Bus Control [Press Enter]
Memory Hole [Disabled]
System BIOS Cacheable [Disabled]
Video RAM Cacheable [Disabled]
Item Help
Menu Level ▸
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F7: Optimized Defaults

**DRAM Clock/Drive Control**

To control the Clock/Drive. If you highlight the literal "Press Enter" next to the "DRAM Clock/Drive Control" label and then press the enter key, it will take you a submenu with the following options:

**DRAM Clock**
This item determines DRAM clock following 100MHz, 133MHz, 166MHz or By SPD.
**The Choices:** 100MHz, 133MHz, **By SPD** (default), 166MHz.

**DRAM Timing**
This item determines DRAM clock/ timing follow SPD or not.
**The Choices: Auto By SPD** (default), Manual, Turbo, Ultra.

**DRAM CAS Latency**
When DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.
**The Choices**: **2.5** (default), 2.

**Bank Interleave**
This item allows you to enable or disable the bank interleave feature.
**The Choices: Disabled** (default), 2 bank, 4 bank.

**Precharge to Active (Trp)**
This items allows you to specify the delay from precharge command to activate command.
**The Choices**: 2T, **3T** (default).

**Active to Precharge (Tras)**
This items allows you to specify the minimum bank active time.
**The Choices**: **7T** (default), 6T.

**Active to CMD (Trcd)**
Use this item to specify the delay from the activation of a bank to the time that a read or write command is accepted.
**The Choices**: 2T, **3T** (default).

**DRAM Burst Length**
**The Choices: 4** (default), 8.

**DRAM Queue Depth**
This item permits to place the depths of the memory. The deeper the depth is, the better is this function.
**The Choices: 4 level** (default), 2 level, 3 level.

**DRAM Command Rate**
This item controls clock cycle that must occur between the last valid write operation and the next command.
**The Choices:** 1T Command, **2T Command** (default).

**Write Recovery Time**
**The Choices: 3T** (default), 2T.

**DRAM tWTR**
**The Choices: 3T** (default), 1T.

## AGP & P2P Bridge Control

If you highlight the literal "Press Enter" next to the "AGP & P2P Bridge Control" label and then press the enter key, it will take you a submenu with the following options:

**AGP Aperture Size**
Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.
**The Choices:** 64M, 256M, **128M** (default), 32M, 16M, 8M, 4M.

**AGP Mode**
This item allows you to select the AGP Mode.
**The Choices: 4X** (default), 2X, 1X.

**AGP Driving Control**
By choosing "Auto" the system BIOS will the AGP output Buffer Drive strength P Ctrl by AGP Card. By choosing "Manual", it allows user to set AGP output Buffer Drive strength P Ctrl by manual.
**The Choices: Auto** (default), Manual.

**AGP Driving Value**
While AGP driving control item set to "Manual", it allows user to set AGP driving.
**The Choices: DA** (default).

**AGP Fast Write**
**The Choices:** Enabled, **Disabled** (default).

**AGP Master 1 WS Write**
When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with one-wait states.
**The Choices: Disabled** (default), Enabled.

**AGP Master 1 WS Read**
When Enabled, read to the AGP (Accelerated Graphics Port) are executed with one wait states.
**The Choices: Disabled** (default), Enabled.

**DBI Output for AGP Trans.**
**The Choices: Disabled** (default), Enabled.

## CPU & PCI Bus Control

If you highlight the literal "Press Enter" next to the "CPU & PCI Bus Control" label and then press the enter key, it will take you a submenu with the following options:

**PCI1 Master 0 WS Write**
When enabled, writes to the PCI bus are executed with zero-wait states.
**The Choices: Enabled** (default), Disabled.

**PCI2 Master 0 WS Write**
When enabled, writes to the AGP bus are executed with zero-wait states.
**The Choices: Enabled** (default), Disabled.

**PCI1 Post Write**
When Enabled, CPU writes are allowed to post on the PCI bus.
**The Choices: Enabled** (default), Disabled.

**PCI2 Post Write**
When Enabled, CPU writes are allowed to post on the AGP bus.
**The Choices: Enabled** (default), Disabled.

**VLink 8X Support**
**The Choices: Enabled** (default), Disabled.

**PCI Delay Transaction**
The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification.
**The Choices: Enabled** (default), Disabled.

## Memory Hole

When enabled, you can reserve an area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. Refer to the user documentation of the peripheral you are installing for more information.
**The Choices: Disabled** (default), 15M – 16M.

## System BIOS Cacheable

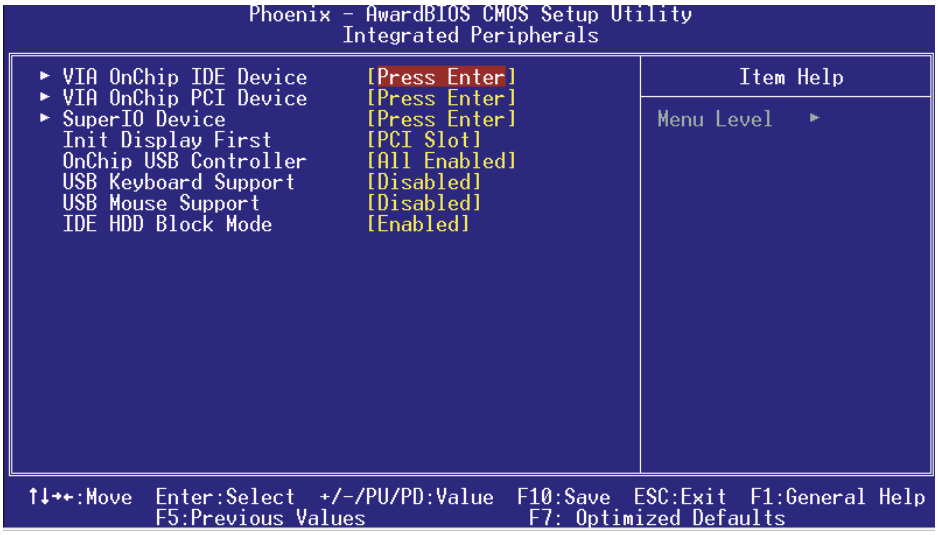
Selecting the "Enabled" option allows caching of the system BIOS ROM at F0000h-FFFFFh, which can improve system performance. However, any programs writing to this area of memory will cause conflicts and result in system errors.
**The Choices:** Enabled**, Disabled** (default).

## Video RAM Cacheable

Enabling this option allows caching of the video RAM, resulting in better system performance. However, if any program writes to this memory area, a system error may result.
**The Choices:** Enabled**, Disabled** (default).

# 5 Integrated Peripherals

■ **Figure 5. Integrated Peripherals**


Phoenix - AwardBIOS CMOS Setup Utility
Integrated Peripherals
VIA OnChip IDE Device [Press Enter]
VIA OnChip PCI Device [Press Enter]
SuperIO Device [Press Enter]
Init Display First [PCI Slot]
OnChip USB Controller [All Enabled]
USB Keyboard Support [Disabled]
USB Mouse Support [Disabled]
IDE HDD Block Mode [Enabled]
Item Help
Menu Level ▸
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F7: Optimized Defaults

**VIA OnChip IDE Device**

The chipset contains a PCI IDE interface with support for two IDE channels.
Select "Enabled" to activate the first and / or second IDE interface. If you install a primary and / or secondary add-in IDE interface, select "Disabled" to deactivate an interface. If you highlight the literal "Press Enter" next to the "Onchip IDE Control" label and then press the enter key, it will take you a submenu with the following options:

**OnChip IDE Channel 0/1**
The motherboard chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the first and/or second IDE interface. Select "Disabled" to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface.
**The Choices: Enabled** (default), Disabled.

**IDE Prefetch Mode**
The "onboard" IDE drive interfaces supports IDE prefetching for faster drive access. If the interface does not support prefetching. If you install a primary and/or secondary add-in IDE interface, set this option to "Disabled".
**The Choices: Enabled** (default), Disabled.

**IDE Primary / Secondary Master / Slave PIO**
The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 through 4 provides successively increased performance. In Auto mode, the system automatically determines the best mode for each device.
**The Choices: Auto** (default), Mode0, Mode1, Mode2, Mode3, Mode4.

**IDE Primary / Secondary Master / Slave UDMA**
Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to enable BIOS support.
**The Choices: Auto** (default), Disabled.

## VIA OnChip PCI Device

If you highlight the literal "Press Enter" next to the "OnChip PCI Device" label and then press the enter key, it will take you a submenu with the following options:

### VIA-3058 AC97 Audio
This option allows you to control the onboard AC97 audio.
**The Choices: Auto** (default), Disabled.

### VIA-3068 MC97 Modem
This option allows you to control the onboard MC97 modem.
**The Choices: Auto** (default), Disabled.

### VIA-3043 OnChip LAN
This option allows you to control the onboard LAN.
**The Choices: Enabled** (default), Disabled.

### Onboard LAN Boot ROM
This item allows you to enable or disable Onboard LAN Boot ROM.
**The Choices: Disabled** (default), Enabled.

### CMI Onboard Audio
This item allows you to select enable or disable the Onboard CMI 8738 Audio controller .
**The Choices: Enabled** (default), Disabled.

## Super IO Device

If you highlight the literal "Press Enter" next to the "Super IO Device" label and then press the enter key, it will take you a submenu with the following options:

### Onboard FDC Controller
Select Enabled if your system has a floppy disk controller (FDC) installed on the

system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.
**The Choices: Enabled** (default), Disabled.

### Onboard Serial Port 1
Select an address and corresponding interrupt for the first and second serial ports.
**The Choices:** Disabled, **3F8/IRQ4** (default), 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Auto.

### Onboard Serial Port 2
Select an address and corresponding interrupt for the first and second serial ports.
**The Choices:** Disabled, **2F8/IRQ3** (default), 3F8/IRQ4, 3E8/IRQ4, 2E8/IRQ3, Auto.

### UART Mode Select
This item allows you to determine which Infra Red (IR) function of onboard I/O chip.
**The Choices: Normal** (default), AS KIR, IrDA.

### RxD, TxD Active
This item allows you to determine which Infrared (IR) function of onboard I/O chip.
**The Choices: Hi / Lo** (default), Hi / Hi, Lo / Hi, Lo / Lo.

### IR Transmission Delay
This item allows you to enable/disable IR transmission delay.
**The Choices: Enabled** (default), Disabled.

### UR2 Duplex Mode
Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time.
**The Choices: Half** (default), Full.

### Use IR Pins
Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.
**The Choices: IR-Rx2Tx2** (default), RxD2, TxD2.

### Onboard Parallel Port
This item allows you to determine access onboard parallel port controller with which I/O Address.
**The Choices: 378/IRQ7** (default), 278/IRQ5, 3BC/IRQ7, Disabled.

### Parallel Port Mode
The default value is SPP.

**The Choices:**

| | |
|---|---|
| **SPP**(default) | Using Parallel port as Standard Printer Port. |
| EPP | Using Parallel Port as Enhanced Parallel Port. |
| ECP | Using Parallel port as Extended Capabilities Port. |
| ECP+EPP | Using Parallel port as ECP & EPP mode. |

**EPP Mode Select**
Select EPP port type 1.7 or 1.9.
**The Choices: EPP 1.7**(default), EPP1.9.

**ECP Mode Use DMA**
Select a DMA Channel for the port.
**The Choices: 3** (default), 1.

**Game Port Address**
Game Port I/O Address.
**The Choices: 201** (default), 209, Disabled.

**Midi Port Address**
Midi Port Base I/O Address.
**The Choices: 330** (default), 300, 290**,** Disabled.

**Midi Port IRQ**
This determines the IRQ in which the Midi Port can use.
**The Choices:** 5, **10** (default)

**Init Display First**

With systems that have multiple video cards, this option determines whether the primary display uses a PCI Slot or an AGP Slot.
**The Choices: PCI Slot** (default), AGP.

**OnChip USB Controller**

This option should be enabled if your system has a USB installed on the system board. You will need to disable this feature if you add a higher performance controller.
**The Choices: All Enabled** (default), All Disabled, 1&2 USB Port, 2&3 USB Port, 1&3 USB Port, 1 USB Port, 2 USB Port, 3 USB Port.

**USB Keyboard Support**

Enables support for USB attached keyboards.
**The Choices: Disabled** (default), Enabled.

**USB Mouse Support**

Enables support for USB attached mouse.
**The Choices: Disabled** (default), Enabled.

**IDE HDD Block Mode**

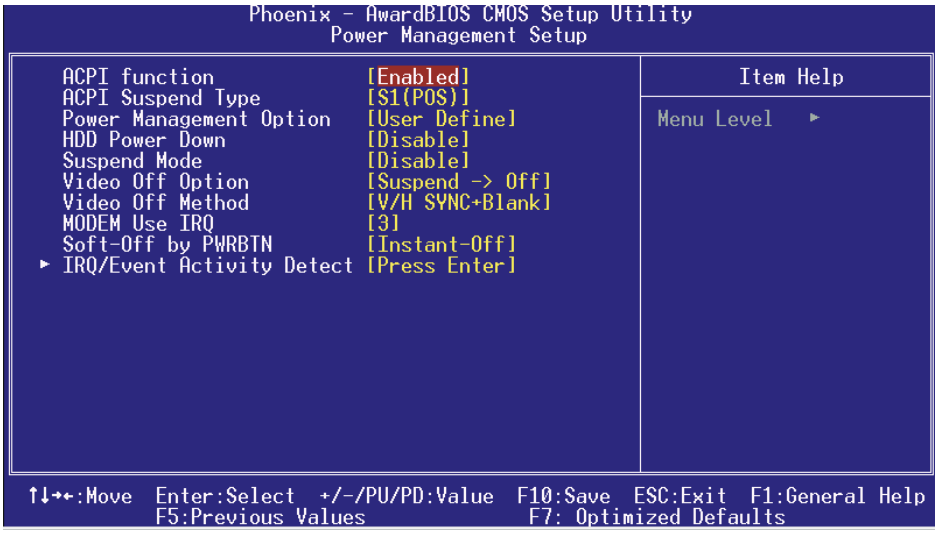
Block mode is also called block transfer, multiple commands, or multiple sector read / write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read / write per sector where the drive can support.

**The Choices: Enabled** (default), Disabled.

# 6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

■ **Figure 6. Power Management Setup**


Phoenix - AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI function [Enabled]
ACPI Suspend Type [S1(POS)]
Power Management Option [User Define]
HDD Power Down [Disable]
Suspend Mode [Disable]
Video Off Option [Suspend -> Off]
Video Off Method [V/H SYNC+Blank]
MODEM Use IRQ [3]
Soft-Off by PWRBTN [Instant-Off]
IRQ/Event Activity Detect [Press Enter]
Item Help
Menu Level ▸
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F7: Optimized Defaults

**ACPI function**

This item displays the status of the Advanced Configuration and Power Management (ACPI).

**The Choices: Enabled** (default), Disabled.

**ACPI Suspend Type**

The item allows you to select the suspend type under the ACPI operating system.

| | | |
|---|---|---|
| **The Choices: S1 (POS)** (default) | Power on Suspend |
| S3 (STR) | Suspend to RAM |
| S1+S3 | POS+STR |

**Power Management**

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

1.HDD Power Down.

2.Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings

Min. Power Saving

Minimum power management.
Suspend Mode = 1 hr.
HDD Power Down = 15 min

Max. Power Saving

Maximum power management only available for sl CPU's.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

**User Defined** (default)

Allows you to set each mode individually.
When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

**HDD Power Down**

When enabled, the hard disk drive will power down and after a set time of system inactivity. All other devices remain active.
**The Choices: Disabled** (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15Min.

**Suspend Mode**

The item allows you to select the suspend type under ACPI operating system.
**The Choices: Disabled** (default), 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 10 Min, 20 Min, 30 Min, 40 Min, 1 Hour.

**Video Off Option**

This field determines when to activate the video off feature for monitor power management.
**The Choices: Suspend→Off** (default), Always on.

**Video Off Method**

This option determines the manner in which the monitor is goes blank.

**V/H SYNC+Blank** (default)

This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen

This option only writes blanks to the video buffer.
DPMS

Initial display power management signaling.
**The Choices: Stop Grant** (default), PwrOn Suspend.

## Modem Use IRQ

This determines the IRQ, which can be applied in MODEM use.
**The Choices: 3** (default),4 / 5 / 7 / 9 / 10 / 11 / NA.

## Run VGABIOS if S3 Resume

Choosing Enabled will make BIOS run VGA BIOS to initialize the VGA card when system wakes up from S3 state . The system time is shortened if you disable the function , but system will need AGP driver to initialize the card . So , if the AGP driver of the VGA card does not support the initialization feature , the display may work abnormally or not function after S3 .
**The Choices:**Auto, **Yes** (default), No.

## Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."
**The Choices:** Delay 4 Sec, **Instant-Off** (default).

## IRQ/Event Activity Detect

If you highlight the literal "Press Enter" next to the "IRQ/Event Activity Detect" label and then press the enter key, it will take you a submenu with the following options:

**USB Resume from S3**
This item allows you to enable or disable USB Resume from S3.
**The Choices: Disabled** (defautl), Enabled.

**VGA**
When set to **On**, any event occurring at a VGA Port will awaken a system which has been powered down.
**The Choices: Off** (default), On.

**LPT & COM**
When this option is set to **On**, any event occurring at a COM(serial)/LPT (printer) port will awaken a system which has been powered down.
**The Choices: LPT/COM** (default), COM, LPT, NONE.

**HDD & FDD**
When this option is set to **On**, any event occurring on a hard drive or a floppy drive will awaken a system which has been powered down.
**The Choices: On** (default), Off.

**PCI Master**
When set to **On**, you need a LAN add-on card which supports the power function. It should also support the wake-up on LAN jump.
**The Choices: Off** (default), On.

**PowerOn by PCI Card**
When you select Enabled, a PME signal from PCI card returns the system to Full ON state.
**The Choices: Disabled** (default), Enabled.

**Wake Up On LAN/Ring**
To use this function, you need a LAN add-on card which support power on function. It should also support the wake-up on LAN jump.
**Disabled** (default) Wake up on LAN/Ring not supported.
Enabled Wake up on LAN/Ring supported.

**Modem Ring Resume**
**The Choices: Disabled** (default), Enabled.

**RTC Alarm Resume**
When "Enabled", you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.
**The Choices:** Enabled, **Disabled** (default).

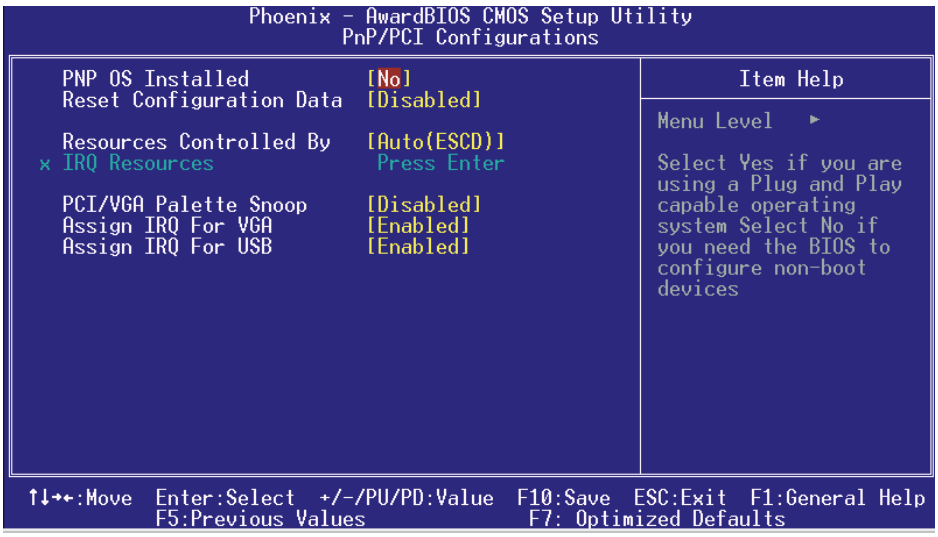
**IRQs Activity Monitoring**
**Press Enter** to access another sub menu used to configure the different wake up events (i.e. wake on LPT & COMM activity).

| | |
|---|---|
| Primary INTR | On |
| IRQ3 (COM2) | Enabled |
| IRQ4 (COM1) | Enabled |
| IRQ5 (LPT2) | Enabled |
| IRQ6 (Floppy Disk) | Enabled |
| IRQ7 (LPT1) | Enabled |
| IRQ8 (RTC Alarm) | Disabled |
| IRQ9 (IRQ2 Redir) | Disabled |
| IRQ10 (Reserved) | Disabled |
| IRQ11 (Reserved) | Disabled |
| IRQ12 (PS/2 Mouse) | Enabled |
| IRQ13 (Coprocessor) | Enabled |
| IRQ14 (Hard Disk) | Enabled |
| IRQ15 (Reserved) | Disabled |

# 7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

■ **Figure 7. PnP/PCI Configurations**


Phoenix - AwardBIOS CMOS Setup Utility
PnP/PCI Configurations
PNP OS Installed [No]
Reset Configuration Data [Disabled]
Resources Controlled By [Auto(ESCD)]
x IRQ Resources Press Enter
PCI/VGA Palette Snoop [Disabled]
Assign IRQ For VGA [Enabled]
Assign IRQ For USB [Enabled]
Item Help
Menu Level ▸
Select Yes if you are using a Plug and Play capable operating system Select No if you need the BIOS to configure non-boot devices
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F7: Optimized Defaults

**PNP OS Installed**

When set to YES, BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Window™ 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware™), this option must set to NO.
**The Choices: No** (default), Yes.

**Reset Configuration Data**

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled

option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.
Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

**The Choices: Disabled** (default), Enabled.

## Resources Controlled By

By Choosing "**Auto(ESCD)**" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral.By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

## IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when "Resources Controlled By" is set to "Manual".

| | | |
|---|---|---|
| IRQ-3 | assigned to | PCI Device |
| IRQ-4 | assigned to | PCI Device |
| IRQ-5 | assigned to | PCI Device |
| IRQ-7 | assigned to | PCI Device |
| IRQ-9 | assigned to | PCI Device |
| IRQ-10 | assigned to | PCI Device |
| IRQ-11 | assigned to | PCI Device |
| IRQ-12 | assigned to | PCI Device |
| IRQ-14 | assigned to | PCI Device |
| IRQ-15 | assigned to | PCI Device |

## PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

| | |
|---|---|
| **Disabled** (default) | Disables the function. |
| Enabled | Enables the function. |

**Assign IRQ For VGA**

This item allows the users to choose which IRQ to assign for the VGA.

**The Choices: Enabled** (default), Disabled.

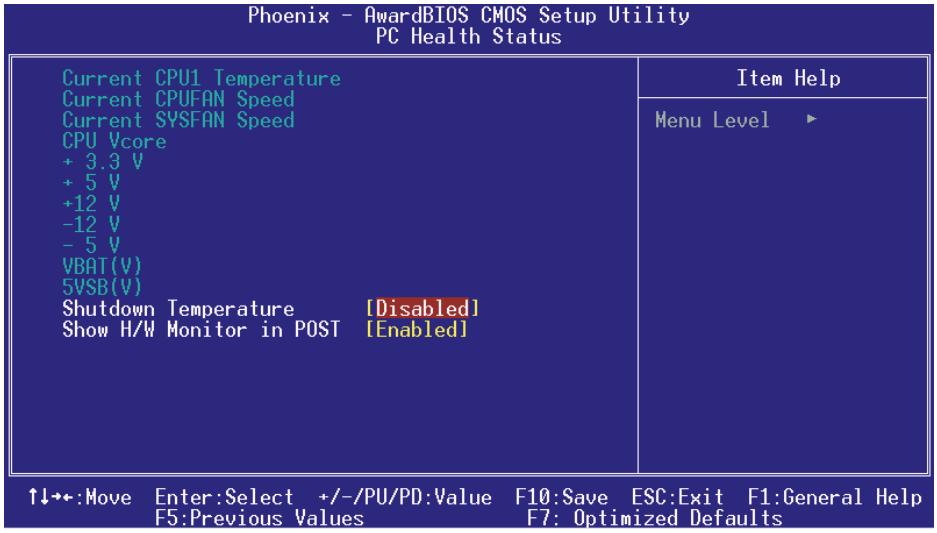
**Assign IRQ For USB**

This item allows the users to choose which IRQ to assign for the USB.

**The Choices: Enabled** (default), Disabled.

# 8 PC Health Status

■ **Figure 8. PC Health Status**




**Current CPU1 Temperature**

This field displays the current temperature of the CPU.

**Current CPUFAN Speed**

This field displays the current speed of CPU fan.

**Current SYSFAN Speed**

This field displays the current speed SYSTEM fan.

**CPU Vcore/ 3.3V/ +5V/ +12V/ -12V/ -5V/ VBAT(V)/ 5VSB(V)**

Detect the system's voltage status automatically.

**Shutdown Temperature**

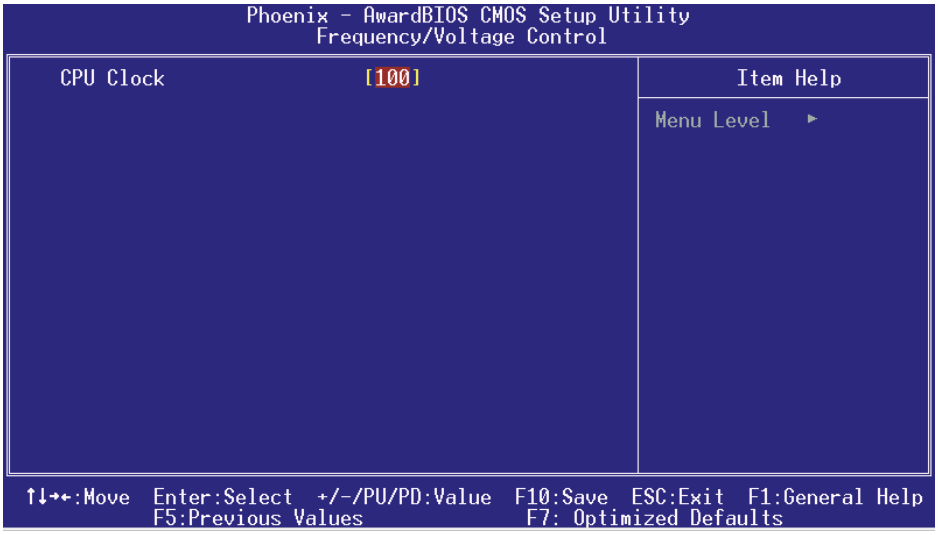
This item allows you to set up the CPU shutdown Temperature. This item only effective under Windows 98 ACPI mode.
**The Choices: Disabled** (default), 60$^{O}$C/140$^{O}$F, 65$^{O}$C/149$^{O}$F, 70$^{O}$C/158$^{O}$F, 75$^{O}$C/167$^{O}$F.

**Show H/W Monitor in POST**

If your computer contains a monitoring system, it will show PC health status during POST stage. The item offers several delay time for you to choose.
**The Choices: Enabled** (default), Disabled.

# 9 Frequency/ Voltage Control

■ **Figure 9. Frequency/ Voltage Control**




**CPU Clock**

This item allows you to select CPU Clock, and CPU over clocking.

If unfortunately, the system's frequency that you are selected is not functioning, there are two methods of booting-up the system.

Method 1: Clear the COMS data by setting the JCOMS1 ((2-3) closed)) as "ON" status. All the CMOS data will be loaded as defaults setting.

Method 2: Press the <Insert> key and Power button simultaneously, after that keep-on pressing the <Insert> key until the power-on screen showed. This action will boot-up the system according to FSB of the processor.

※ **It's strongly recommended to set CPU Vcore and clock in default setting. If the CPU Vcore and clock are not in default setting, it may cause CPU or M/B damage.**